REMARKS

Claims 1-25 are pending. Claims 1-25 are rejected under the judicially created doctrine of obviousness-type double patenting based on co-pending Application No. 10/617,422. The claims are also rejected under Sections 101,102, 103, and 112.

Obviousness-Type Double Patenting

The Applicants of the `422 application are currently in the process of considering how that application will proceed in the future. It may be that the application is abandoned. This would obviate the double-patenting rejection. If not, the Applicants of the present case would be amenable to the filing of a Terminal Disclaimer if that is the remaining issue in the case, upon the entry of the current Response and Amended Claims.

Claims 7, 10, and 22-25 are objected to because of noted informalities. Applicants note that the claims have been amended to address those objections.

Rejections Under 35 U.S.C. §112

Claims 9-25 are rejected under Section 112. The Examiner notes that the claimed subject matter is not described in the specification in a way to convey that the Inventors had possession of the claimed invention. Applicants respectfully disagree. The Examiner seems to be

reading into Claims 9-25 a specific interpretation of those claims that is not an exclusive interpretation. Nevertheless, Applicants note that Claims 9 and 22 have been amended with respect to the cited peripheral devices. Applicants submit that independent Claims 9 and 22 are clear and precise in their current form. Therefore, the Section 112 rejections of Claims 9-25 should be withdrawn.

Rejections Under 35 U.S.C. §101

The Examiner has rejected Claims 1-25, and specifically has rejected independent Claims 1, 9, and 22 as being directed to non-statutory subject matter. Specifically, the Examiner takes issue with the form of those independent claims, and indicates that as filed, they recited non-functional descriptive material or were directed to program instructions not limited to a tangible computer-readable medium. Applicants submit that Claim 22 has been amended to recite a tangible computer-readable storage medium, bearing instructions encoded thereon. The storage medium's functionality is certainly realized with the instructions encoded thereon, as recited in the claim. Accordingly, Claim 22 is in a suitable format under the Patent Laws.

With respect to Claims 1 and 9, those claims specifically recite a system with peripheral devices for enabling a system for executing a multimodal software application recited in Claim 1, and recite a method

for utilizing peripheral devices to receive inputs and to generate outputs to a user when executing a multimodal application.

Applicants submit that Claims 1 and 9 are further definite, and are not simply non-functional descriptive material. Accordingly, Applicants submit that the Section 101 rejections have been addressed, and the objections should be withdrawn. If there are other helpful suggestions that the Examiner may have regarding claim wording for this purpose, the undersigned would certainly encourage a telephone conversation on the issue, at the Examiner's convenience.

Rejections Under 35 U.S.C. §102

Claims 1-3, 7-9, 11-13, 15, and 19-20 are rejected under Section 102(b) over the patent of <u>Morin, et al.</u>, U.S. Patent Number 5,748,841. The present invention is directed to a system and methodology for executing multimodal software application for interfacing with the plurality of peripheral devices that can receive inputs from a user and can generate outputs to a user. Specifically, the multimodal methodology and system provides a platform for a user to do work by interfacing with a user through a plurality of various modalities. To operate with the plurality of peripheral devices that provide the plurality of different modalities, the present invention is operable for monitoring the state of an ongoing dialog, such as from the dialog units that form

14

the workflow description, and selectively adapting the system based on the state of the dialog.

Specifically, while speech, or input through text, such as from a keyboard, might be implemented in the present invention, the present invention also incorporates a large number of other peripheral devices, such as radio-frequency ID readers (RFID), bar code scanners, touch screens, printers, etc. As may be appreciated, information may be only available from one particular peripheral device, or from a set of peripheral devices for a particular dialog unit that defines the current state of the dialog. To that end, the present invention monitors the state of the dialog for the particular workflow description that is proceeding, and selectively enables a particular modality of the input, based upon the state of the dialog. That is, the system knows what information is being sought based upon the state of the dialog and, in certain situations, will not simply rely upon the user or a single hardwired modality.

Claim 1 recites a first set of peripheral devices for receiving inputs from a user in a plurality of modalities, and a second set of peripheral devices for generating outputs to a user in a plurality of modalities. The multimodal software application receives first data, reflective of an input, from the first set of peripheral devices, and outputs second data, to form an output, to a second set of peripheral devices. A dialog engine is in communication with the multimodal software application, and executes a workflow description that has a plurality of dialog units that form a dialog.

15

Claim 1 further recites that the dialog engine selectively enables the modality of the input from the first set of peripherals based on a state of the dialog of the workflow description.

Referring to the current published application, Paragraph 70 notes that the collection of workflow objects is called a workflow description, or dialog. That workflow description, or dialog, is a series of messages to output to a user, and includes a number of instances where input is expected to be received from a user (Paragraph 75). That dialog can be utilized to provide input and output in many different modalities, such as speech, audio, scanners, keyboards, touch screens, etc. (Paragraph 75). However, while some output is not appropriate for some peripheral devices and some input is not going to be provided by certain other input devices, each dialog unit within the dialog or workflow description includes a designation of which peripheral device is to be used, and thus, which modalities are to be used with respect to the associated ongoing dialog state or dialog unit. As noted in Paragraph 75, based on the state of the dialog, such as a specific dialog unit, the workflow description thus reflects what modality of the input is acceptable, such as input from a screen, a voice response, or via a bar code scanner, for example. As such, the dialog engine executing the workflow description can thus, selectively enable the modality of the input from the peripheral devices based on the state of the dialog of the workflow description, as

16

opposed to enabling all modalities in respective peripheral devices or requiring that certain modalities are selected by the user.

Claim 1 further recites that the dialog engine further controls outputting of a prompt based on an input state of the <u>enabled modality</u> of a first set of peripheral devices. That is, the dialog engine selectively enables the modality, and then controls outputting of a prompt, based on the input state of the enabled modality. The present invention does not want to interrupt the dialog when input might be received from a peripheral device not even involved in that dialog. The present invention addresses that issue as well, by controlling outputting of a prompt from the dialog, based on the input statue of the enabled modality of the peripheral devices.

The reference of <u>Morin, et al</u>, does not at all teach a dialog engine that selectively enables the modality of the input from a set of peripheral devices based on a state of a dialog of the workflow description. Furthermore, <u>Morin, et al</u>. also does not teach that the dialog engine then controls outputting of a prompt from the workflow description based on an input state of that enabled modality.

First, the <u>Morin, et al</u>. reference does not teach a system for doing general work, or executing a workflow description, or dialog, for accomplishing that work. Primarily, <u>Morin, et al</u>. is directed to a system that allows a user unfamiliar with a computer program language or commands to progressively build sentences, which will have meaning to

the application or computer program. Thus, the dialog of <u>Morin, et al</u>. is directed to receiving user inputs and building such sentences based upon those inputs received from the user. The multimodality of <u>Morin, et al</u>. is generally limited. The system is multimodal only in the sense that it provides a mechanism for the user to enter either text or speech as input. However, with <u>Morin, et al</u>., that input technique (text or speech) is selected by the user. Then the system proceeds with that selected modality to get inputs from a user and to act accordingly.

The <u>Morin, et al</u>. system does not teach monitoring a particular dialog, or specifically the state of a dialog of workflow description to selectively enable the modality of the input. The input of <u>Morin, et al</u>. is selected as being either text or speech, and a user of the <u>Morin, et al</u>. system proceeds accordingly. For example, it is clearly noted in Columns 16-22 of <u>Morin, et al</u>. that the operations that are performed while in text mode are different from the operations performed while in speech mode. That is, those two modes function separately. Therefore, a user has to select the mode that will be utilized. Even if the text and speech modes are utilized at the same time, there is still no selective enabling of the particular modality of the input based on a state of a dialog of the workflow description. That is, the selected mode, or modes, used within <u>Morin, et al</u>. does not, in any way, relate to the workflow description, or a state of the dialog of the workflow description.

18

As such, <u>Morin, et al.</u> does not teach the selective enablement of the modality of the input, as recited in Claim 1.

Furthermore, <u>Morin, et al</u>. does not teach controlling the outputting of a prompt from the workflow description, based on the input state of the <u>enabled modality</u>. The language referred to in Columns 8, 9, and 10 by the Examiner does not, in any way, teach that feature wherein the input state of the enabled modality is monitored, and the output of a prompt is controlled based upon that input state. The language referred to in Column 10 by the Examiner is directed to a context handler and history handler of the dialog of <u>Morin, et al</u>. There is no discussion whatsoever with respect to controlling the outputting of a prompt based upon what is being input at an enabled modality. Again, there is no selective enablement of the modality, as taught in <u>Morin, et al</u>., and thus, <u>Morin, et al</u>. cannot teach controlling the outputting of a prompt based on the input state of the enabled modality.

With respect to Column 9 referred to by the Examiner, that column does not at all teach controlling outputting of a prompt. There is a discussion in Column 9 with respect to managing a dialog and interpreting user inputs or initiating questions to the user when information is needed. However, there is absolutely no teaching with respect to selectively controlling the outputting of a specific prompt based on an input state of the enabled modality of a set of peripheral devices.

Finally, with respect to Column 8 of <u>Morin, et al</u>, that column merely refers to generating output messages to the user. There is no discussion therein in Lines 17-37 regarding selectively controlling the outputting based upon monitoring and determining an input state of the enabled modality of a set of peripheral devices.

Accordingly, the <u>Morin, et al</u>. reference fails to teach all the limitations set forth in Claim 1, and thus, does not anticipate Claim 1 under Section 102(b).

Each of the dependent Claims 2-3 and 7-8 depend from Claim 1, and thus, recite all the limitations therein, and would be allowable for the reasons noted above. Furthermore, each of those dependent claims recites a unique combination of elements not taught by the cited art.

Similar to Claim 1, Claim 9 has been amended to recite a method that includes the steps of executing a workflow description, that includes a plurality of dialog units that form a dialog, and selectively enabling a modality of the input from a plurality of peripheral devices, based on a state of the dialog of the workflow description. Claim 9 further recites the step of controlling the outputting of a prompt according to an input state of the enabled modality. As noted above, the <u>Morin, et al</u>. reference does not at all teach a method setting forth the steps as recited in Claim 9. As thus, since <u>Morin , et al</u>. does not teach all of the elements recited in Claim 9, that claim is not anticipated under Section 102(b).

Claims 12-13, 15, and 19-20 all depend from Claim 9, and thus, include the limitations therein. Accordingly, those dependent claims are also not anticipated under Section 102(b). Furthermore, each of those claims recites a unique combination of steps that is not taught by the cited art.

Rejections Under 35 U.S.C. §103(a)

Claims 4-5 and 16-18 are rejected under Section 103(a) over the combination of <u>Morin, et al.</u>, as modified by <u>Gergic, et al.</u>, U.S. Publication Number 2002/0198719.

Claims 4-5 depend from Claim 1, and Claims 16-18 depend from Claim 9, which are allowable over the <u>Morin, et al.</u> reference for the reasons noted above. The <u>Gergic, et al.</u> reference is relied upon by the Examiner for the concept of filling two fields of information with a single utterance. However, <u>Gergic, et al.</u> does not provide the teaching lacking in <u>Morin, et al.</u> such that the combination of the references would render obvious Claim 1 or Claims 4 and 5. Accordingly, those claims are in allowable form. Similarly, Claims 9 and 16-18 are in an allowable form, and are not rendered obvious by the cited combination.

Claims 6 and 14 are rejected over <u>Morin, et al.</u>, as modified by <u>Hanle, et al.</u>, U.S. Patent Number 5,012,511. The Examiner relies on <u>Hanle, et al.</u> for the teaching of non-interruptible prompts. However, <u>Hanle, et al</u> does not provide the teachings lacking in <u>Morin, et al.</u> noted

above, such that the combination of references would render obvious Claim 1 or 9. As such, Claims 6 and 14, which respectively depend from Claims 1 and 9, would not be rendered obvious by the cited combination. Accordingly, those claims are in an allowable form.

Claims 10, 22-23, and 25 are rejected over the combination of Morin, et al. and French-St. George, et al., U.S. Patent Number 6,012,030. As noted above, Claim 1 is allowable over Morin et al. French-St. George, et al. is recited for its teaching regarding a visual control of a GUI screen. However, the reference does not provide the teaching missing in Morin, et al. such that the combination of those two references would render obvious Claim 1 or Claim 10. Accordingly, Claim 10 is allowable.

With respect to Claim 22, that independent claim has been amended to recite a tangible computer-readable storage medium bearing instructions encoded thereon to cause one or more processors to perform the steps of executing a workflow description, that includes a plurality of dialog units that form a dialog, and selectively enabling a modality of an input, based upon a state of the dialog of the workflow description. Claim 22 further recites controlling the outputting of a prompt according to an input state of the enable modality. For the reasons noted above with respect to Claims 1 and 9, the Morin, et al. reference does not teach the invention as recited in Claim 22. Furthermore, the combination of the French-St. George, et al. reference

does not provide the teachings that are lacking in Morin, et al. such that the two references would teach all the limitations recited in Claim 22. Thus, Claim 22 is not rendered obvious by the cited art. Dependent Claims 23 and 25 depend from Claim 22, and also recite a unique combination of elements not rendered obvious of the combination of Morin, et al. and French-St. George, et al.

Claim 22 is rejected over the combination of Morin, et al. and Setlur, et al., U.S. Patent Number 5,956,675. Setlur, et al. is referred to for teaching a barge-in attempt, and does not teach the elements missing from Morin, et al. such that a combination of the two references would render obvious Claim 21, which depends from allowable Claim 9. Accordingly, Claim 21 is in an allowable form as well.

Claim 24, which depends from independent Claim 22, is rejected over the three-reference combination of Morin, et al./French-St. George, et al./Gergic, et al. As noted above, the combination of Morin, et al./French-St.George, et al. does not render obvious Claim 22. The addition of the Gergic, et al. reference would also not render obvious that claim because it does not teach all the limitations that are missing from the two-reference combination. Accordingly, Claim 24 is also in an allowable form over the cited art.

Rejections Under 35 U.S.C. §103(b)

In light of the foregoing, it is respectfully submitted that the pending claims are allowable and the present application is in a condition for allowance. If the application is in condition for allowance otherwise, Applicants will be amenable to a Terminal Disclaimer, if it is necessary, as noted. If it is found that the present amendment does not place the application in a condition for allowance, Applicants' undersigned attorney requests that the examiner initiate a telephone interview to expedite prosecution of the application.

Applicants do not believe that any fees are due in connection with this response. However, if any fees are necessary, the Commissioner may consider this to be a request for such and charge any necessary fees to deposit account 23-3000.

Respectfully submitted,

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